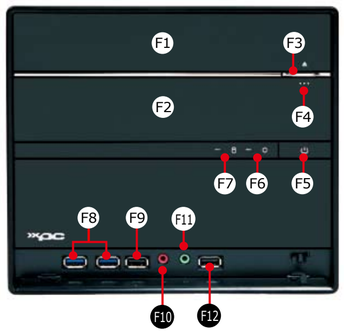
SH87R6 Quick Guide【 English 】

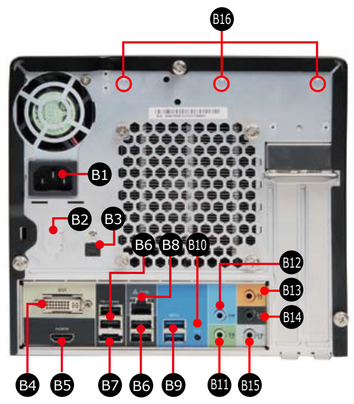
62R-SH87R0-4801
English.Spanish.Korean.
Traditional Chinese.Japanese.
French. German Quick Guide

Front Panel



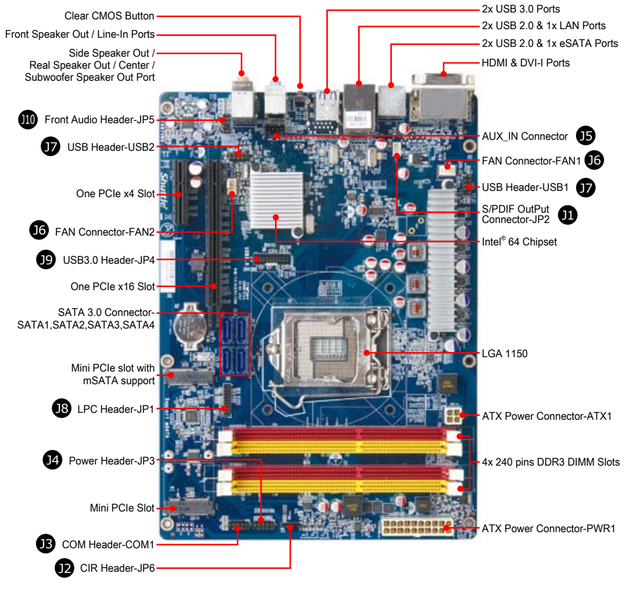
F1. 5.25” Bay
F2. 3.5” Bay
F3. Eject Button
F4. Open Door
F5. Power Switch
F6. Power LED
F7. HDD LED
F8. USB3.0 Ports
F9. USB2.0 Port
F10. Mic In
F11. Headphone
F12. USB2.0 Port & Fast Charger

Back Panel



B1. AC Power Socket
B2. Serial Port (Optional)
B3. S/PDIF Out Port
B4. DVI-I Port
B5. HDMI Port
B6. USB2.0 Ports
B7. eSATA Port
B8. LAN Port
B9. USB3.0 Ports
B10. Clear CMOS Button
B11. Front Speaker Out (L/R) Port
B12. Line-In Port
B13. Side Speaker Out (L/R) Port
B14. Real Speaker Out (L/R) Port
B15. Center/Subwoofer Speaker Out Port
B16. Wireless LAN Perforation (Optional)

Motherboard Illustration


Clear CMOS Button
Front Speaker Out / Line-In Ports
Side Speaker Out / Real Speaker Out / Center / Subwoofer Speaker Out Port
J10 Front Audio Header-JP5
J7 USB Header-USB2
One PCIe x4 Slot
J6 FAN Connector-FAN2
J9 USB3.0 Header-JP4
One PCIe x16 Slot
SATA 3.0 Connector-SATA1,SATA2,SATA3,SATA4
Mini PCIe slot with mSATA support
J8 LPC Header-JP1
J4 Power Header-JP3
Mini PCIe Slot
J3 COM Header-COM1
J2 CIR Header-JP6
2x USB 3.0 Ports
2x USB 2.0 & 1x LAN Ports
2x USB 2.0 & 1x eSATA Ports
HDMI & DVI-I Ports
AUX_IN Connector J5
FAN Connector-FAN1 J6
USB Header-USB1 J7
S/PDIF OutPut Connector-JP2 J1
Intel® 64 Chipset
LGA 1150
ATX Power Connector-ATX1
4x 240 pins DDR3 DIMM Slots
ATX Power Connector-PWR1

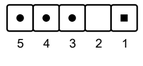
Jumper Settings

J1 S/PDIF OutPut Connector (JP2)

1=Ground
2=VCC
3=SPDIFO

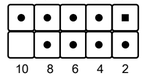
J2 CIR Header (JP6)

1=5V
2=NULL
3=Ground
4=GPIO1
5=GPIO2



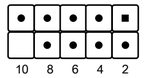
J3 COM Header (COM1)

1=DCD	2=RXD
3=TXD	4=DTR
5=Ground	6=DSR
7=RTS	8=CTS
9=Ring	10=NULL



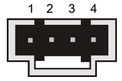
J4 Power Header (JP3)

1=+HD_LED	2=PWR_LED
3=-HD_LED	4=GND
5=RST_SW	6=PWR_SW
7=GND	8=GND
9=NULL	10=NA



J5 AUX IN Connector

1=AUX-IN – Left
2=Ground
3=Ground
4=AUX-IN – Right

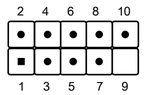


J6 Fan Connectors

1=Ground
2=+12V
3=SPEED_SENSE
4=PWM_CTRL

J7 USB Header (USB1,USB2)

1=5V_USB	2=5V_USB
3=USB A-	4=USB B-
5=USB A+	6=USB B+
7=GND	8=GND
9=NA	10=NULL

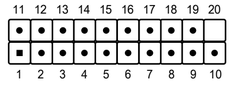


J8 LPC Header (JP1)

1=+12V	2=5V	3=5VSB
4=SERIRQ	5=CLK_48M	6=CLK_33M
7=SIO_RST	8=LFRAME	9=LAD3
10=LAD2	11=-12V	12=3VSB
13=Ring	14=LDRQ0	15=SIO_PME
16=LAD1	17=LAD0	18=+3.3V
19=GND	20=NULL	

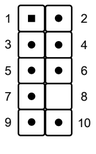
J9 USB 3.0 Header (JP4)

1=5VCC	2=A_RX_N
3=A_RX_P	4=Ground
5=A_TX_N	6=A_TX_P
7=Ground	8=A_Data_N
9=A_Data_P	10=OC
11=B_Data_P	12=B_Data_N
13=Ground	14=B_TX_P
15=B_TX_N	16=Ground
17=B_RX_P	18=B_RX_N
19=5VCC	20=NULL



J10 Front Audio Header (JP5)

1=MIC_L	2=GND
3=MIC_R	4=Front_Detect
5=LINE_R	6=Mic_detect
7=sense	8=NULL
9=LINE_L	10=Line_Detect



➢ Safety Information

Read the following precautions before setting up a Shuttle XPC.

CAUTION

Incorrectly replacing the battery may damage this computer. Replace only with the same or equivalent as recommended by Shuttle. Disposal of used batteries according to the manufacturer's instructions.

Laser compliance statement

The optical disc drive in this PC is a laser product.
The drive's classification label is located on the drive.

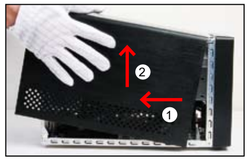
CLASS 1 LASER PRODUCT

CAUTION: INVISIBLE LASER RADIATION WHEN OPEN.AVOID EXPOSURE TO BEAM.

A. Begin Installation

⚠ For safety reasons, please ensure that the power cord is disconnected before opening the case.

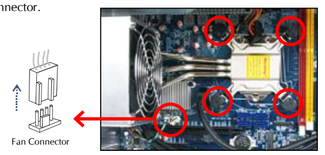
1. Unscrew 3 thumbscrews of the chassis cover.
2. Slide the cover backwards and upwards.



3. Unfasten the rack mount screws and remove the rack.

B. CPU and ICE Installation

1. Unfasten the ICE fan thumbscrews on the back of the chassis.
2. Unfasten the four ICE module attachment screws and unplug the fan connector.

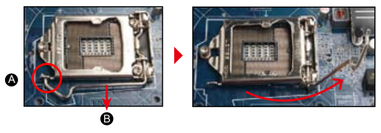


3. Remove the ICE module from the chassis and put it aside.

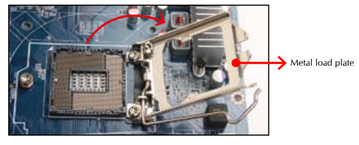
⚠ This 1150 pin socket is fragile and easily damaged. Always use extreme care when installing a CPU and limit the number of times that you remove or change the CPU. Before installing the CPU, make sure to turn off the computer and unplug the power cord from the power outlet to prevent damage to the CPU.

➢ Follow the steps below to correctly install the CPU into the motherboard CPU socket.

4. Remove the protective membrane from the CPU socket.
5. First unlock. Press Ⓐ with your thumb, then move it to Ⓑ until it is released from the retention tab and raise the socket lever.

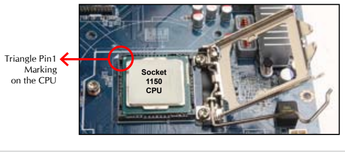


6. Lift the metal load plate on the CPU socket.



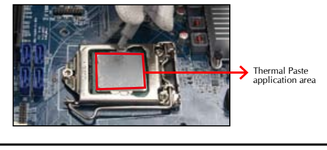
⚠ DO NOT touch socket contacts. To protect the CPU socket, always replace the protective socket cover when the CPU is not installed.

7. Orientate the CPU and socket, you may align the CPU notches with the socket alignment keys. Make sure the CPU is perfectly horizontal, insert the CPU into the socket.



⚠ Please be aware of the CPU orientation, DO NOT force the CPU into the socket to avoid bending of pins on the socket and damage of CPU!

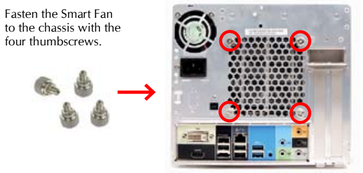
8. Close the metal load plate, lower the CPU socket lever and lock in place.
9. Spread thermal paste evenly on the CPU surface.



⚠ Please do not apply excess amount of thermal paste.

10. Tear off the protective membrane from the bottom of ICE module.
11. Screw the ICE module to the mainboard. Note to press down on the opposite diagonal corner while tightening each screw.
12. Connect the fan connector.

13. Fasten the Smart Fan to the chassis with the four thumbscrews.



C. Memory module Installation

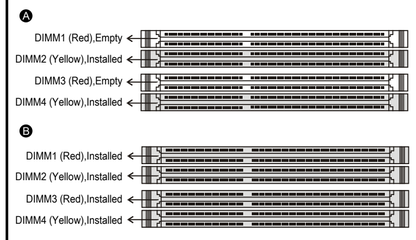
➢ Guidelines for Memory Configuration

Before installing DIMMs, read and follow these guidelines for memory configuration.

⚠ Make sure that the motherboard supports the memory.
It is recommended that memory of the same capacity, brand, speed,and chips are used.
(Go to Shuttle's website for the latest memory support list.)
Memory modules have a foolproof design. A memory module can be installed in only one direction. If you are unable to insert the memory, switch the direction.

➢ Dual-Channel mode Population Rule

In Dual-Channel mode, the memory modules can transmit and receive data with two data bus lines simultaneously. Enabling Dual-Channel mode can enhance the system performance. The following illustrations explain the population rules for Dual-Channel mode.

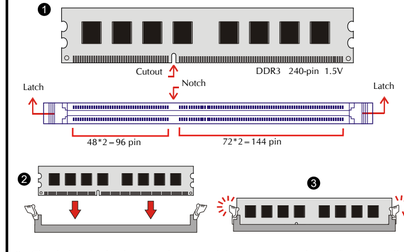


➢ Installing a memory module

DDR3 and DDR2 DIMMs are not compatible to each other or DDR DIMMs. Be sure to install DDR3 DIMMs on this motherboard. Follow the steps below to correctly install your memory modules in the memory sockets.

1. Unlock the DIMM latch.
2. Align the memory module's cutout with the DIMM slot notch. Slide the memory module into the DIMM slot.

⚠ A DDR3 memory module has a cutout, so it can only fit in one direction.



3. Check that the latches are closed, and the memory module is firmly installed.

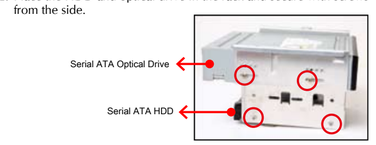
⚠ Repeat the above steps to install additional memory modules, if required.

D. Mini PCIe card Installation

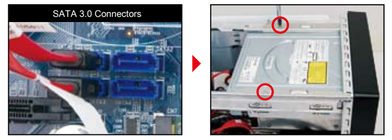
1. Install the Mini PCIe card into the Mini PCIe slot / mSATA Slot and affix it with screws.

E. Peripheral Installation

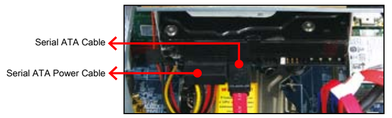
1. Loosen the purse lock and separate the Serial ATA and power cables.
2. Place the HDD and optical drive in the rack and secure with screws from the side.



3. Connect the Serial ATA Cable to motherboard.
4. Place the rack in the chassis and refasten the rack.



5. Connect the Serial ATA and power cables to the HDD.

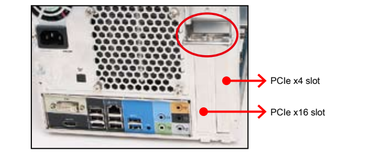


6. Connect the Serial ATA and power cables to the optical drive.

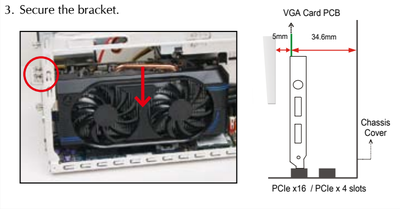
F. Accessories Installation

1. Unfasten expansion slot bracket screws.
Remove the back panel bracket and put the bracket aside.

⚠ The maximum size acceptable for display cards is 267mm x 98mm x 34.6mm.

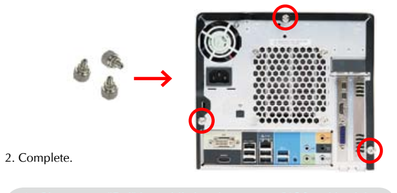


2. Install the PCIe x4 / PCIe x16 card into the PCIe x4 / PCIe x16 slots.
3. Secure the bracket.



G. Complete

1. Replace the cover and refasten the thumbscrews.



2. Complete.

⚠ Please press "Del" key while booting to enter BIOS and load the optimised BIOS settings.

The product's colour and specification will depend on the actual shipping product.

53R-SH87R3-1001